

AMENDMENTS TO THE CLAIMS

14. **(Currently Amended)** A picture coding apparatus which codes pictures on a picture-by-picture basis, and generates a random access unit as a part of a stream, the random access unit including the coded pictures, said apparatus comprising:

a coding unit operable to generate pieces of coded picture data by coding the pictures on a picture-by-picture basis;

an information generation unit operable to generate ~~pieces of a plurality of~~ picture parameter ~~sets set information~~, each of ~~the picture parameter sets being which is a parameter-group to be referenced-used~~ for decoding each piece of the coded picture data;

a first storage unit operable to store the pieces of the coded picture data respectively ~~into~~ in access units that constitute the random access unit; ~~and~~

a second storage ~~unit unit, based on a predetermined condition~~, operable to store ~~each pieces of the first picture parameter sets set information into in~~ a first access unit that is located at a head of the random access ~~unit; and unit, or into an access unit in which a piece of the coded picture data that refers to the piece of the picture parameter set information is stored;~~

a third storage unit operable to store a second picture parameter set in a second access unit, coded picture data of the second access unit referring to the second picture parameter set,

~~wherein said second storage unit is operable to store a plurality of the pieces of the picture parameter set information into the first access unit, and to limit the number of pieces of the picture parameter set information stored in the first access unit each of the picture parameter sets includes at least one of a type of variable length coding method, an initial value of quantization step, and a number of reference pictures.~~

15. **(Currently Amended)** A picture decoding apparatus which decodes a plurality of coded pictures out of ~~aeesses a stream by a random access unit~~, the stream generated by said picture coding apparatus according to Claim 14, ~~and decodes pieces of coded picture data~~, said apparatus comprising:

~~a picture specification unit operable to specify a picture to be decoded from the plurality of the coded pictures, part of the pieces of the coded picture data to be decoded from the pieces of the coded picture data so as to specify a piece of the coded picture data stored in a first access unit that is located at a head of the random access unit;~~

~~an obtainment unit operable to obtain, obtain the first picture parameter set from the first access unit or to obtain the second picture parameter set from the coded picture data of the second access unit referring to the second picture parameter set, the first access unit storing a plurality of the first picture parameter sets, each of picture parameter sets includes at least one of a type of variable length coding method, an initial value of quantization step, and a number of reference pictures; from the first access unit or an access unit which stores the coded picture data to be decoded, picture parameter set information which is a parameter group referenced for decoding the coded picture data to be decoded; and~~

~~a first decoding unit operable to decode the coded picture data to be decoded by referring to the picture parameter set first picture parameter set or the second picture parameter set information;~~

~~a second decoding unit operable to decode the picture to be decoded by referring to the first picture parameter set or the second picture parameter set.~~

16. **(Currently Amended)** A picture coding method ~~for coding which codes~~ pictures on a picture-by-picture basis, and ~~generating-generates~~ a random access unit as a part of a stream, the random access unit including the coded pictures, said method comprising:

generating pieces of coded picture data by coding the pictures on a picture-by-picture basis;

generating ~~a plurality of pieces of picture parameter sets, set information;~~ each of the picture parameter sets being used ~~which is a parameter group to be referenced~~ for decoding each piece of the coded picture data;

first storing the pieces of the coded picture data respectively, ~~in~~ into access units that constitute the random access unit; and

second ~~storing, storing first based on a predetermined condition, each pieces of the picture parameter sets in set information into~~ a first access unit that is located at a head of the random access unit; ~~unit; and/or into an access unit in which a piece of the coded picture data that refers-~~

to the piece of the picture parameter set information is stored,

third storing a second picture parameter set in a second access unit, coded picture data of the second access unit referring to the second picture parameter set,

wherein, wherein each in said storing, a plurality of the pieces of the picture parameter sets includes at least one of a type of variable length coding method, an initial value of quantizing step, and a number of reference pictures set information are stored into the first access unit in said second storing, and the number of pieces of the picture parameter set information, stored in the first access unit, is limited.

17. **(Currently Amended)** A picture decoding method which decodes a plurality of coded pictures out of the ~~for accessing a stream by a random access unit, the stream generated by said picture coding apparatus method according to Claim 16, and decoding pieces of coded picture data,~~ said method comprising:

specifying a part of the pieces of the coded picture data to be decoded from the plurality of coded pictures pieces of the coded picture data so as to specify a piece of the coded picture data stored in a first access unit that is located at a head of the random access unit;

obtaining, obtaining the first picture parameter set from the first access unit or obtaining the second picture parameter set from the coded picture data of the second access unit referring to the second picture parameter set, the first access unit storing a plurality of the first picture parameter sets, each of picture parameter sets includes at least one of a type of variable length coding method, an initial value of quantization step, and a number of reference pictures; an access unit which stores the coded picture data to be decoded, picture parameter set information which is a parameter group referenced for decoding the coded picture data to be decoded; and

first decoding the first picture parameter set or the second picture parameter set; and the coded picture data to be decoded by referring to the pieces of picture parameter set information

second decoding the picture to be decoded by referring to the first picture parameter set or the second picture parameter set.

18. **(Currently Amended)** A recording method for coding pictures on a picture-by-picture basis, and recording a stream including a random access unit having the plurality of coded pictures into a computer-readable recording medium, said recording method comprising:

generating pieces of coded picture data by coding the pictures on a picture-by-picture basis;

generating a plurality pieces of picture parameter sets, each of the picture parameters sets being used set information, each of which is a parameter group to be referenced for decoding each piece of the coded picture data;

first storing the pieces of the coded picture data respectively in ~~into~~ access units that constitute the random access unit; and

~~second storing, storing first picture parameter sets in a first access unit that is located at a head of the random access unit; based on a predetermined condition, each pieces of the picture parameter set information into a first access unit that is located at a head of the random access unit, or into an access unit in which a piece of the coded picture data that refers to the piece of the picture parameter set information is stored;~~

third storing a second picture parameter set in a second access unit, coded picture data of the second access unit referring to the second picture parameter set;

recording the stream generated in said first storing, second storing and third storing onto the recording medium,

wherein each of the picture parameter sets includes at least one of a type of variable length coding method, an initial value of quantization step, and a number of reference pictures~~wherein, in said second storing, a plurality of the pieces of the picture parameter set information are stored into the first access unit in said second storing, and the number of pieces of the picture parameter set information, stored in the first access unit, is limited.~~

19 **(New)** A picture coding apparatus according to Claim 14, wherein said second storage unit is operable to have a predetermined maximum number of the first picture parameter sets which can be stored in the first access unit.

20. **(New)** A picture coding apparatus according to Claim 19, wherein said second picture

parameter set is different from said first picture parameter sets.